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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY
Wheat (*Triticum* spp.)

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
ADDRESS (Street and No. or RD No., City, State, Zip Code and Country)		FOR OFFICIAL USE ONLY
		PVPO NUMBER

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g.,

0	9	9
---	---	---

 or

0	9
---	---

) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____. Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

☐

1 = Common
2 = Durum
3 = Club
4 = Other (Specify) _____

2. VERNALIZATION:

☐

1 = Spring
2 = Winter
3 = Other (Specify) _____

3. COLEOPTILE ANTHOCYANIN:

☐

1 = Absent 2 = Present

4. JUVENILE PLANT GROWTH:

☐

1 = Prostrate 2 = Semi-Erect 3 = Erect

5. PLANT COLOR: (boot stage)

☐

1 = Yellow-Green
2 = Green
3 = Blue-Green

6. FLAG LEAF: (boot stage)

☐

1 = Erect 2 = Recurved

☐

1 = Not Twisted 2 = Twisted

☐

1 = Wax Absent 2 = Wax Present

7. EAR EMERGENCE:

<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------

Number of Days (Average)

<input type="text"/>	<input type="text"/>
----------------------	----------------------

Number of Days Earlier Than * _____

Same As * _____

<input type="text"/>	<input type="text"/>
----------------------	----------------------

Number of Days Later Than * _____

*Relative to a Commercial Variety Grown in the Same Trial

8. ANTHHER COLOR:

☐

1 = Yellow 2 = Purple

9. PLANT HEIGHT: (from soil to top of head, excluding awns)

cm (Average)

cm Taller Than _____ *

Same As _____ *

cm Shorter Than _____ *

10. STEM:**A. ANTHOCYANIN**

1 = Absent 2 = Present

B. WAXY BLOOM

1 = Absent 2 = Present

C. HAIRINESS (last internode of rachis)

1 = Absent 2 = Present

D. INTERNODE

1 = Hollow 2 = Semi-Solid 3 = Solid

Number of Nodes

E. PEDUNCLE

1 = Erect 2 = Recurved 3 = Semi-Erect

cm Length

F. AURICLE

Anthocyanin 1 = Absent 2 = Present

Hair: 1 = Absent 2 = Present

11. HEAD: (at maturity)**A. DENSITY**

1 = Lax
2 = Mid-dense (Laxidense)
3 = Dense**B. SHAPE**

1 = Tapering
2 = Strap
3 = Clavate
4 = Other (Specify) _____**C. CURVATURE**

1 = Erect
2 = Inclined
3 = Recurved**D. AWNEDNESS**

1 = Awnless
2 = Apically Awnletted
3 = Awnletted
4 = Awned**12. GLUMES:** (at maturity)**A. COLOR**

1 = White
2 = Tan
3 = Other (Specify) _____**B. SHOULDER**

1 = Wanting 2 = Oblique
3 = Rounded 4 = Square
5 = Elevated 6 = Apiculate
7 = Other (Specify) _____**C. SHOULDER WIDTH**

1 = Narrow
2 = Medium
3 = Wide**D. BEAK**

1 = Obtuse
2 = Acute
3 = Acuminate**E. BEAK WIDTH**

1 = Narrow
2 = Medium
3 = Wide**F. GLUME LENGTH**

1 = Short (ca. 7mm)
2 = Medium (ca. 8mm)
3 = Long (ca. 9mm)**G. WIDTH**

1 = Narrow (ca. 3mm)
2 = Medium (ca. 3.5mm)
3 = Long (ca. 4mm)

13. SEED:**A. SHAPE**

- ☐ 1 = Ovate
☐ 2 = Oval
☐ 3 = Elliptical

B. CHEEK

- ☐ 1 = Rounded
☐ 2 = Angular

C. BRUSH

- ☐ 1 = Short
☐ 2 = Medium
☐ 3 = Long
- ☐ 1 = Not Collared
☐ 2 = Collared

D. CREASE

- ☐ 1 = Width 60% or less of Kernel
☐ 2 = Width 80% or less of Kernel
☐ 3 = Width Nearly as Wide as Kernel
- ☐ 1 = Depth 20% or less of Kernel
☐ 2 = Depth 35% or less of Kernel
☐ 3 = Depth 50% or less of Kernel

E. COLOR

- ☐ 1 = White
☐ 2 = Amber
☐ 3 = Red
☐ 4 = Other (Specify) _____

F. TEXTURE

- ☐ 1 = Hard
☐ 2 = Soft
☐ 3 = Other (Specify) _____

G. PHENOL REACTION

- ☐ 1 = Ivory
☐ 2 = Fawn
☐ 3 = Light- Brown
☐ 4 = Dark- Brown
☐ 5 = Black

H. SEED WEIGHT

- g/1000 Seed (whole number only)

I. GERM SIZE

- ☐ 1 = Small
☐ 2 = Mid-Size
☐ 3 = Large

14. DISEASE: (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

- | | |
|---|---|
| <input type="checkbox"/> Stem Rust (<i>Puccinia graminis</i> f. sp. <i>tritici</i>) | <input type="checkbox"/> Leaf Rust (<i>Puccinia recondita</i> f. sp. <i>tritici</i>) |
| <input type="checkbox"/> Stripe Rust (<i>Puccinia striiformis</i>) | <input type="checkbox"/> Loose Smut (<i>Ustilago tritici</i>) |
| <input type="checkbox"/> Tan Spot (<i>Pyrenophora tritici-repentis</i>) | <input type="checkbox"/> Flag Smut (<i>Urocystis agropyri</i>) |
| <input type="checkbox"/> Halo Spot (<i>Selenophoma donacis</i>) | <input type="checkbox"/> Common Bunt (<i>Tilletia tritici</i> or <i>T. laevis</i>) |
| <input type="checkbox"/> <i>Septoria nodorum</i> (Glume Blotch) | <input type="checkbox"/> Dwarf Bunt (<i>Tilletia controversa</i>) |
| <input type="checkbox"/> <i>Septoria avenae</i> (Speckled Leaf Disease) | <input type="checkbox"/> Karnal Bunt (<i>Tilletia indica</i>) |
| <input type="checkbox"/> <i>Septoria tritici</i> (Speckled Leaf Blotch) | <input type="checkbox"/> Powdery Mildew (<i>Erysiphe graminis</i> f. sp. <i>tritici</i>) |
| <input type="checkbox"/> Scab (<i>Fusarium</i> spp.) | <input type="checkbox"/> "Snow Molds" |
| <input type="checkbox"/> "Black Point" (Kernel Smudge) | <input type="checkbox"/> Common Root Rot (<i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris</i> spp.) |
| <input type="checkbox"/> Barley Yellow Dwarf Virus (BYDV) | <input type="checkbox"/> Rhizoctonia Root Rot (<i>Rhizoctonia solani</i>) |
| <input type="checkbox"/> Soilborne Mosaic Virus (SBMV) | <input type="checkbox"/> Black Chaff (<i>Xanthomonas campestris</i> pv. <i>translucens</i>) |
| <input type="checkbox"/> Wheat Yellow (Spindle Streak) Mosaic Virus | <input type="checkbox"/> Bacterial Leaf Blight (<i>Pseudomonas syringae</i> pv. <i>syringae</i>) |
| <input type="checkbox"/> Wheat Streak Mosaic Virus (WSMV) | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Other (Specify) _____ | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Other (Specify) _____ | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Other (Specify) _____ | <input type="checkbox"/> Other (Specify) _____ |

15. INSECT: (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

- | | |
|--|--|
| <input type="checkbox"/> Hessian Fly (<i>Mayetiola destructor</i>) | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Stem Sawfly (<i>Cephus</i> spp.) | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Cereal Leaf Beetle (<i>Oulema melanopa</i>) | <input type="checkbox"/> Other (Specify) _____ |

15. **INSECT:** (continued) 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant

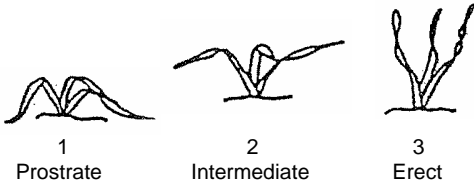
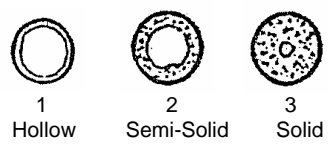
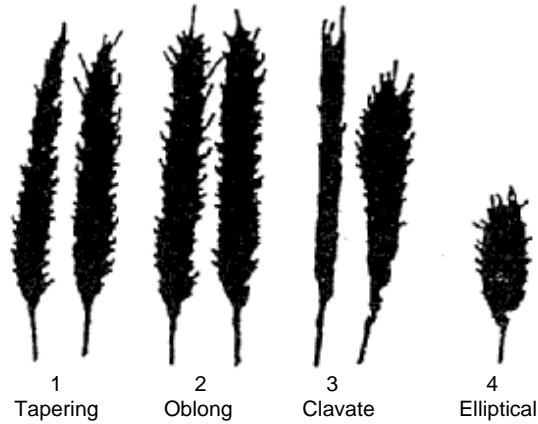

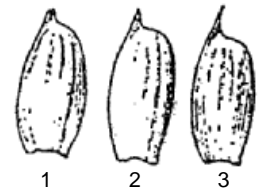
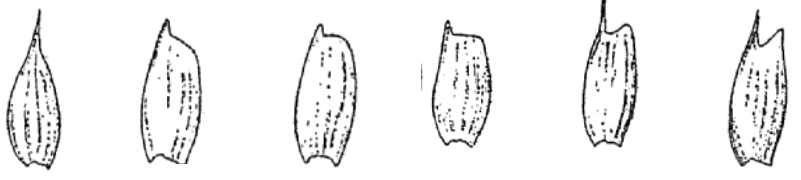







PLEASE SPECIFY BIOTYPE (Where Needed)

<input type="checkbox"/>	Russian Aphid (<i>Diuraphis noxia</i>)	<input type="checkbox"/>	Other (Specify) _____
<input type="checkbox"/>	Greenbug (<i>Schizaphis graminum</i>)	<input type="checkbox"/>	Other (Specify) _____
<input type="checkbox"/>	Aphids	<input type="checkbox"/>	Other (Specify) _____

16. **ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:**

WHEAT DESCRIPTOR ILLUSTRATIONS

Section Numbers Correspond to the Numbers of the Sections on the Form

<p>4. EARLY PLANT GROWTH HABIT:</p>  <p>1 Prostrate 2 Intermediate 3 Erect</p>	<p>10. STEM INTERNODE X-SECTION:</p>  <p>1 Hollow 2 Semi-Solid 3 Solid</p>	<p>11. SPIKE SHAPE:</p>  <p>1 Tapering 2 Oblong 3 Clavate 4 Elliptical</p>	
<p>11. AWNEDNESS:</p>  <p>1 Awnless 2 Apically Awnleted 3 Awnleted 4 Awned</p>	<p>12. BEAK SHAPE:</p>  <p>1 Obtuse 2 Acute 3 Acuminate</p>		
<p>12. SHOULDER SHAPE:</p>  <p>1 Wanting 2 Oblique 3 Rounded 4 Square 5 Elevated 6 Apiculate</p>			
<p>13. SEED SHAPE:</p>  <p>1 Ovate 2 Oval 3 Elliptical</p>	<p>13. CHEEK SHAPE:</p>  <p>1 Rounded 2 AngulaR</p>	<p>13. BRUSH SIZE</p>  <p>1 Small 2 Mid-Sized 3 Large 4 Collared</p>	<p>13. BRUSH HAIR LENGTH:</p>  <p>1 Short 2 Medium 3 Long</p>
<p>13. GERM (EMBRYO) SIZE:</p>  <p>1 Small 2 Mid-Sized 3 Large</p>	<p>13. SEED CREASE WIDTH:</p>  <p>1 Narrow 2 Mid-Wide 3 Wide</p>	<p>13. SEED CREASE DEPTH:</p>  <p>1 Shallow 2 Mid-Deep 3 Deep</p>	